AMENDMENTS TO THE CLAIMS

Please cancel, without prejudice, claims 2 and 19-24.

1. **(Previously presented)** A method of screening for an agent for inhibiting or reducing the proliferation or growth of lung cancer cells, comprising contacting lung cancer cells with an amount of an agent, wherein the agent is a small organic molecule, and determining, as compared to a control, whether the agent inhibits or attenuates hedgehog signaling and whether the agent inhibits or reduces cell proliferation or growth, wherein if the agent inhibits or attenuates the hedgehog signaling and inhibits or reduces cell proliferation or growth relative to the control, then an agent that inhibits or reduces the proliferation or growth of lung cancer cells is identified.

2. **(Cancelled)**

3. **(Previously presented)** The method of claim 1, wherein the lung cancer cells are in culture.

4. **(Previously presented)** The method of claim 1, wherein the cells are in an animal.

5. **(Withdrawn)** The method of claim 1, wherein the agent is a hedgehog therapeutic.

6. **(Withdrawn)** The method of claim 5, wherein the hedgehog therapeutic is a polypeptide including a hedgehog polypeptide sequence of at least a bioactive extracellular portion of a hedgehog protein.

7. **(Withdrawn)** The method of claim 6, wherein the polypeptide includes at least 50 amino acids residues of an N-terminal half of the hedgehog protein.

8. **(Withdrawn)** The method of claim 6, wherein the polypeptide includes at least 100 amino acids of an extracellular domain of the hedgehog protein.

9. **(Withdrawn)** The method of claim 6, wherein the polypeptide includes at least a portion of the hedgehog protein corresponding to a 19kd fragment of an extracellular domain of the hedgehog protein.

10. **(Withdrawn)** The method of claim 6, wherein the hedgehog protein is encoded by a gene of a vertebrate organism.

11. **(Withdrawn)** The method of claim 6, wherein the polypeptide includes a hedgehog polypeptide sequence represented in the general formula of SEQ ID No. 21.

12. **(Withdrawn)** The method of claim 6, wherein the polypeptide includes a hedgehog polypeptide sequence represented in the general formula of SEQ ID No. 22.

13. **(Withdrawn)** The method of claim 6, wherein the hedgehog protein is encoded by a human hedgehog gene.

14. **(Withdrawn)** The method of claim 6, wherein the hedgehog polypeptide sequence is at least 60 percent identical to an amino acid sequence of a hedgehog protein selected from SEQ ID No:9, SEQ ID No:10, SEQ ID No:11, SEQ ID No:12, SEQ ID No:13, SEQ ID No:14, SEQ ID No:15, or SEQ ID No:16.

15. **(Withdrawn)** The method of claim 6, wherein the hedgehog polypeptide sequence is encodable by a nucleotide sequence which hybridizes under stringent conditions to a sequence selected from SEQ ID No:1, SEQ ID No:2, SEQ ID No:3, SEQ ID No:4, SEQ ID No:5, SEQ ID No:6, SEQ ID No:7, or SEQ ID No:8.

16. **(Withdrawn)** The method of claim 6, wherein the hedgehog polypeptide sequence is an amino acid sequence of a hedgehog protein selected from SEQ ID No:9, SEQ ID No:10, SEQ ID No:11, SEQ ID No:12, SEQ ID No:13, SEQ ID No:14, SEQ ID No:15, or SEQ ID No:16.

17. **(Withdrawn)** The method of claim 6, wherein the hedgehog polypeptide sequence is an amino acid sequence of a Sonic hedgehog protein.

18-24. **(Cancelled)**

25. **(Previously presented)** The method of claim 1, wherein the lung cancer cells are small cell lung cancer (SCLC) cells or non-small cell lung cancer (NSCLC) cells.

26. **(Previously presented)** The method of claim 1, wherein the lung cancer cells are adenocarcinoma cells, lung cell carcinoma cells, or squamus cell carcinoma cells.

27. **(Currently amended)** An *in vitro* method of screening for an agent for inhibiting or reducing the proliferation or growth of cells, comprising contacting normal lung cells provided in culture with an amount of an agent, and determining, as compared to a control, whether the agent inhibits or attenuates hedgehog signaling and whether the agent inhibits or reduces cell proliferation or growth, wherein if the agent inhibits or attenuates the hedgehog signaling and inhibits or reduces cell proliferation or growth relative to the control, then an agent that inhibits or reduces the proliferation or growth of normal lung cells is identified.

28. **(New)** The method of claim 27, wherein the agent is a small organic molecule.